

INDEX, VOLUME 16, 1992

AUTHOR INDEX

Adair, D., 476
 Aksel, M. H., 414
 Alidi, A. S., 645
 Alliney, S., 148
 Altiero, N. J., 618
 Altman, T., 439
 Bakalis, P. S., 201
 Bansal, P., 255
 Barreto, G. F., 520
 Baruh, H., 245
 Berto, C. A., 520
 Bickley, D. T., 423
 Blajer, W., 70
 Boulos, P. F., 439
 Bradley, F. J., 534
 Broadbridge, P., 155
 Cardona, J., 78
 Chae, K. C., 36
 Chakraverty, S., 269
 Chamilothoris, G., 545
 Chen, C. W., 394
 Chen, C.-K., 325
 Contractor, D. N., 282
 Cook, A. E., 431
 Costa, M. L. M., 589
 Dahhou, B., 545
 Davis, R. P., 86
 Detournay, C., 450
 Dougherty, D. E., 374
 Duncan, R. A., 431
 Ekebjaerg, L., 506
 Ellis, J. E., 201
 Elsworth, D., 404
 El Tawil, M. A., 330
 Evans, A., 562
 Fujita, S., 47
 Galea, E. R., 610
 Godoy, S. V., 47
 Gong, Y.-J., 605
 Gray, W. J., 652
 Hocking, G. C., 300
 Honma, T., 314
 Hossain, M. A., 630
 Hromadka, T. V., II, 114
 Huang, W.-Y., 16
 Hwang, W. S., 394
 Ierotheou, C. S., 610
 Igarashi, H., 314
 Ingber, M. S., 124
 Irving, A. D., 3
 Jha, N. K., 58
 Justesen, P., 506
 Kaya, M. T., 414
 Klemm, A. D., 605
 Ko, M.-G., 338
 Kukreti, A. R., 338
 Kuwahara, K., 26
 Lai, C.-H., 101, 638
 Laudiero, F., 148
 Le, M., 43
 Lee, H. W., 36
 Lee, S. S., 36
 Leggett, P., 610
 Lich, T. G., 498
 Liu, N., 618
 Lo, Y. F., 491
 Logan, J. D., 291
 Lomen, D. O., 155
 Lu, W.-D., 384
 Luat, L. K., 498
 Ma, J., 43
 Mahanty, B., 192
 Mahmoud, A. A., 330
 Mahmoud, M. S., 141
 Malin, M. R., 476
 Malmborg, C. J., 170
 Mandal, P., 192
 Marchant, M. J., 562
 Mazumdar, D., 255
 Mersmann, A., 214
 Militzer, J., 576
 Mishra, B. K., 598
 Mohapatra, P. K. J., 192
 Nadarajan, R., 36
 Narayan, T., 255
 Natakusumah, D. K., 562
 Pan, D., 214
 Pantelis, G., 553
 Patel, M. K., 610
 Phan-Thien, N., 124
 Philippopoulos, C., 484
 Psyllos, A., 484
 Rajamani, R. K., 598
 Ramos, J. I., 464
 Rao, P. M., 26
 Redmond, J. M., 133
 Ritchie, A. I. M., 553
 Roux, G., 545
 Ryrie, S. C., 423
 Sadhal, K. S., 439
 Saldanha da Gama, R. M., 589
 Samartín, A., 78
 Samonds, M., 534
 Sampaio, R., 589
 Sarathy, R., 94
 Savoia, M., 148
 Scott, M., 652
 Sen, A., 94
 Sengupta, S., 86
 Serrano, S. E., 181
 Shahidehpour, S. M., 226
 Shetty, B., 94
 Silverberg, L., 133
 Singh, B., 269
 Soh, W. K., 263
 Solomonidis, C., 357
 Srivastava, R., 282
 Suckling, H., 423
 Sun, Y., 576
 Szmelter, J., 562
 Tabuena, P., 78
 Tadikonda, S. S. K., 245
 Thompson, A. F. B., 374
 Tin-Loi, F., 491
 Tong, S. K., 226
 Tsuboi, K., 26
 Uri, N. D., 16
 Vested, H. J., 506
 Wang, P., 652
 Warrick, A. W., 155
 Weatherill, N. P., 562
 Weaver, L. L., Jr., 133
 Whalley, R., 659
 Whitley, R. J., 114
 Wu, S. L., 394
 Wu, Y.-C., 307
 Xiang, J., 404
 Yang, C. C., 394
 Yang, S.-A., 325
 Yang, Z.-W., 384
 Yanushevsky, R. T., 208
 Yarimer, E., 357
 Yonge, D. R., 630
 Younis, B. A., 476
 Younis, M. A., 141
 Zeng, Z., 659
 Zili, M., 320

TITLE INDEX

A boundary element approach for parabolic differential equations using a class of particular solutions, 124
 A Cauchy integral element for power-type singularities, 450
 A comparison of source term and enthalpy approaches to the numerical simulation of the solidification of ductile irons, 534
 Adaptive block-implicit methods for annular liquid jets, 464
 A decision support system for automated guided vehicle system design, 170
 Advection-dispersion modelling in three dimensions, 506
 Algorithms for two-dimensional transfer function computation, 659
 An adaptive node-moving algorithm for evolution type problems, 431
 An algorithm for dynamic routing in FMS under an unpredicted failure, 141
 Analysis for melt puddle in the planar flow casting process—A mathematical modelling study, 394
 Analysis of rectangular plate resting on an elastic half space using an energy approach, 338
 An analysis of the marginal value of cropland and nitrogen fertilizer use under alternative farm programs, 16
 An energy approach to cavitation bubbles near compliant surfaces, 263
 An inhomogeneous nonlinear boundary value problem in model reactive media, 291
 A new boundary element method for the solution of plane steady-state thermoelastic fracture mechanics problems, 618
 A new method for coupling of boundary element method and finite element method, 43
 An integer goal programming model for hazardous waste treatment and disposal, 645

An M/G/1-type queuing model with service times depending on queue length, 652

A nonoverlapped domain decomposition for a class of convection-diffusion problems, 101

A numerical simulation of the axisymmetric vortex breakdown in a tube, 414

A point enrichment strategy for polygonal finite volume meshes, 562

Approximations for diffusion from a disc source, 155

A scheduling model for the daily operation of an electric power system, 226

A theoretical study of end effects for rectangular resonators on narrow channels, 307

A variational technique for the computation of the vibration frequencies of mechanical systems governed by nonsymmetric matrices, 148

Beams on random elastic supports, 330

Boundary conditions for the two-dimensional Saint-Venant equation system, 498

Calculations of the concentration field of a turbulent methane jet, 476

Calculations on nonlinear dielectric slab waveguides by the iterative eigenfunction expansion method, 605

CFD MARK: A CFD-based benchmark for high-performance computer systems, 610

Collapse limit surface generation for multiparametric loading, 491

Complex variable element solution of potential flow problems using Taylor series for error analysis, 114

Computer modeling of water quality in large multiple-source networks, 439

Design of recursive filters for random wave simulation, 357

Direct and integration methods of parameter estimation in groundwater transport systems, 404

Dynamic modelling for age distribution and age-based policies in manpower planning, 192

Efficient evaluation of integrals in three-dimensional boundary element method using linear shape functions over plane triangular elements, 282

Finite element modelling of multisolute activated carbon adsorption, 630

First-passage problems in linear biased correlated walks, 47

Flow from a vertical slot into a layer of finite depth, 300

Index of differential-algebraic equations governing the dynamics of constrained mechanical systems, 70

Interaction between hydrodynamic effects and control policies in a tidal power scheme, 423

Laminar film condensation on a finite-size horizontal plate with suction at the wall, 325

Mathematical modelling of mass transfer rates between solid and liquid in high-temperature gas-stirred melts, 255

Modelling and adaptive predictive control of a continuous fermentation process, 545

Modelling and simulation of energy transfer in a saturated flow through a porous medium, 589

Modelling of monolithic catalytic converters used in automotive pollution control, 484

Numerical model for the study of hydrodynamics on bays and estuaries, 78

On a batch service queue with single vacation, 36

On an integro-PDE arising from the balance equation of crystal growth—Analytical solutions and simplifications, 214

On axially and helically symmetric fundamental solutions to modified Helmholtz-type equations, 314

Optimal strategic planning problems in manufacturing based on the input-output models, 208

Particle-grid methods for reacting flows in porous media with application to Fisher's equation, 374

Quality implications of machine assignment decisions in a flexible manufacturing system, 86

Rate-limiting factors in dump leaching of pyritic ores, 553

Semianalytical methods in stochastic groundwater transport, 181

Shooting methods for some steady diffusion and convection problems, 638

Simulation of unsteady viscous flow around a longitudinally oscillating circular cylinder in a uniform flow, 26

Static soil-structure interaction analysis by FE-BE coupling method, 384

Stochastic sensitivity analysis, 3

Studies in the approximate control of flexible structures, 245

The application of large-scale systems optimization control algorithms, 201

The discrete element method for the simulation of ball mills, 598

The K-coverage concentrator location problem, 94

The piecewise parabolic finite analytic method. Part I: Theory, 576

The relevance of overall heat transfer coefficients in the simulation of catalytic fixed bed reactors with the heterogeneous one-dimensional model, 520

Transverse vibration of circular and elliptic plates with quadratically varying thickness, 269

Unified theory of automation in process planning utilizing multiobjectives under real world constraints, 58

Uniform damping control: discretization and optimization, 133

Waiting time for a cyclic service system with priority, 320

KEYWORD INDEX

Activated carbon, 630
 Adaptive control, 545
 Adaptive finite elements, 431
 Adaptivity, 562
 Advection-diffusion-reaction equations, 374
 Advection-dispersion, 506
 Age-based policies, 192
 Age-distribution, 192
 Algorithms, 431, 659
 Amorphous ribbon, 394
 Analytical solution, 214
 Annular liquid jets, 464
 ARMA models, 357
 Automated guided vehicle systems, 170

Automotive emission control, 484
 Axisymmetric system, 314
 Ball charge motion, 598
 Ball mill, 598
 Base acreage, 16
 Batch service, 36
 BEM, 384
 Benchmark, 610
 Biased walk, 47
 Bifurcation, 291
 Bio-leaching, 553
 Bioreactor control, 545
 Block-bidiagonal method, 464
 Block-implicit techniques, 464

Bonus service model, 652
 Boundary element, 450
 Boundary element method, 43, 124, 282, 314
 Boundary integral equations, 618
 Boundary integral equation method, 307
 Boundary singularity, 450
 Bubbles, 263
 Burgers' equation, 431
 Busy period, 36
 Cauchy integral, 450
 Cavitation, 263
 CFD, 562, 610
 Collapse surfaces, 491

Combustion, 291, 476
 Complex variable boundary element method, 114
 Compliant surfaces, 263
 Computation, 659
 Computer networks, 94
 Constrained systems, 70
 Contact stress, 338
 Continuous, 58
 Control, 133
 Convection, 638
 Convection-diffusion, 101, 553
 Convective diffusion equation, 576
 Convergence, 576
 Cooling tower, 384
 Corner point, 450
 Correlated walk, 47
 Coupling method, 384
 Crystal population density, 214

DAEs, 70
 Dead load, 384
 Decision support systems, 170
 Deflection function, 338
 Deformation of wave, 307
 Degree of bias, 47
 Degree of correlation, 47
 Detonation, 291
 Diffusion, 155, 638
 Digital filtering, 357
 Directional spectra, 357
 Discrete, 58
 Discrete element method, 598
 Discretization, 133
 Discretization in time, 124
 Disc source, 155
 Domain decomposition, 101, 638
 Ductile iron, 534

Economic dispatch, 226
 Eigenfunction expansion, 605
 Eigenvalue computation, 148
 Elastic motion control, 245
 End effect, 307
 Energy generation, 423
 Energy principles, 338
 Energy transfer, 589
 Enthalpy formulation, 534
 Error analysis, 114
 Eulerian-Lagrangian, 553
 Eutectic solidification, 534

FEM, 384
 Finite analytic method, 576
 Finite element, 534, 630
 Finite element method, 43, 404, 414
 Finite elements, 78
 Finite volume methods, 562
 Fixed bed reactor, 520
 Flexible manufacturing systems, 141
 Flow distribution, 439
 FMS, 86
 Form program analysis, 16
 Fourier-Bessel theorem, 314
 Frequencies, 269
 Free-surface flow, 300
 Fundamental solution, 314

Gas dispersion, 476
 Gas-stirred reactor, 255
 Geometric programming, 58
 Goal programming, 645
 Groundwater contamination, 16

Groundwater models, 181
 Groundwater transport, 404

Hazardous waste management, 645
 Heat transfer, 520
 Helically symmetric system, 314
 Heterogeneous model, 520
 Hierarchical control techniques, 201
 Homogeneous layers, 300
 Horizontal plate condensation, 325
 Hydrodynamics, 78

Imbedded Markov chain, 652
 Industrial crystallization, 214
 Infiltration, 155
 Inflow, 300
 Input-output models, 208
 Integrated manufacturing, 208
 Integration method, 404
 Integrodifferential equation, 214
 Interaction, 338
 Interface coupling, 101
 Internal cracks, 618

Jet flows, 476

K-coverage problem, 94
 Kelvin impulse, 263

Lagrangian relaxation, 226
 Lakes, 300
 Laplace-Stieltjes transform, 320
 Large-scale systems, 201
 Latent heat evolution, 534
 Limit analysis, 491
 Linear algebra, 498
 Linearized control design, 245
 Linear programming, 491
 Linpack, 610
 Location-allocation analysis, 645
 Lock-in-phenomena, 26

Manpower planning, 192
 Marginal value of cropland, 16
 Marker and cell method, 26
 Mathematical modelling, 255
 Mathematical models, 201
 Mathematical optimization, 645
 Mathematical programming, 86
 Methods of lines, 464
 Method of matched eigenfunction expansion, 307
 M/G/1-type queue, 652
 Modelling, 630
 Models, 659
 Mode shapes, 269
 Modified Helmholtz-type equation, 314
 Monolithic catalyst, 484
 Multibjective, 58
 Multiparameter loading, 491
 Multisolute adsorption, 630

Navier-Stokes equations, 414
 Nitrogen fertilizer, 16
 Nonconservative loads, 148
 Nonlinear boundary value problems, 291
 Nonlinear control, 245
 Nonlinear optical waveguides, 605
 Nonlinear response, 3
 Nucleation burst, 214
 Numerical integration, 282
 Numerical methods, 374
 Numerical simulation, 534

On-line computer control, 201
 On line estimation, 545
 Operational attributes, 86
 Optimal control, 423
 Optimal strategic planning, 208
 Optimization, 133, 201

Parabolic differential equations, 124
 Parallel implementation, 101
 Parameter estimation, 201, 404
 Partial differential equation, 498
 Particle methods, 374
 Particular solution, 124
 Pipe networks, 439
 Planar flow casting, 394
 Plates with variable thickness, 269
 Point enrichment, 562
 Porous medium, 589
 Potential flow, 263
 Potential flow problems, 114
 Potential theory, 155
 Power system operation, 226
 Predictive control, 545
 Priority, 320
 Process computer control, 201
 Process planning, 58
 Production control, 141
 Program control, 70
 Projection technique, 148
 Puddle formation, 394
 Pyrite oxidation, 553

Quality, 86
 Queue length, 320, 652
 Queue size, 36
 QUICKEST, 506

Random process simulation, 357
 Random walk, 47
 Rayleigh-Ritz method, 269
 Real-time systems, 201
 Rectangular plate, 338
 Resonator, 307
 Runge-Kutta, 638

Selective withdrawal, 300
 Semianalytical methods, 181
 Sensitivity, 3
 Shallow water equations, 78, 423
 Shooting methods, 638
 Simulation, 520, 598
 Single vacation, 36
 Soil half space, 384
 Soil medium, 338
 SOLA-VOF, 394
 Solid-liquid mass transfer, 255
 Source term algorithm, 534
 SPEC, 610
 Stability, 576
 Stability analysis, 506
 Static interaction, 384
 Stochastic beams, 330
 Stochastic differential equations, 181, 330
 Stochastic process, 3
 Stochastic subgrade reactions, 330
 Subgradient optimization, 94
 Suboptimal feasible solution, 226
 Suction and integral method, 325
 Symmetrization-iteration method, 43
 System dynamics, 192

Taylor series, 114
 The equation of mathematical physics, 498

Theory of mixtures, 589
Thermal stress intensity factors, 618
Thermoelastic fracture mechanics, 618
Three dimensions, 506
Tidal barrage, 423
Time series moments, 3
Transfer functions, 659
Triangular elements, 282
Two-dimensional, 659

Unified theory, 58
Uniform damping, 133
Unit commitment, 226
Validation, 3
Variational methods, 148
Vibration, 269
Vibration frequencies, 148

Vortex breakdown, 414
Vortex shedding, 26
Waiting time, 36, 320
Warehouse location, 94
Water quality, 439
Wave kinematics, 357
Wind pressure, 384

